

Heuristic Evaluation of NurturEd

1. Problem

We are evaluating NurturEd, an app for instructors of home-schooled children made to help home-schooling instructors make lesson plans and track their progress through those lesson plans. The UI has 3 major tasks: saving the type of the day and exploring it, recording/reviewing/uploading a lesson, and finding /exploring a report.

2. Violations Found

1. H1: Visibility of System Status / Severity 3 / Found by: B, C

After choosing to “Upload” their recording on the Recording Details - Summary page, there is no feedback to the user of the file being uploaded. Especially since audio files can take time to manage, it would be helpful to let the user know that the file is being uploaded/has been successfully uploaded. Fix: Add a progress bar to show that the file is being uploaded and a confirmation screen to show that the file has been uploaded.

2. H4: Consistency and Standards / Severity 2 / Found by: B

It is a little unclear the difference between the usage of the words “Reports” and “Recordings.” “Recording” is used for the audio recording user flow, but then the audio recording is nowhere to be found and the user must automatically understand that the recordings have been converted to reports.

Fix: Allow the user access to the audio file somewhere in the report. Add “Your audio file has been converted to a report” on a confirmation screen when the file has been uploaded.

3. H10: Help and Documentation / Severity 2 / Found by: A, B

The explicit explanations on the Recording page are helpful, but may be overwhelming/redundant after the first time, especially since it’s a lot of text.

Fix: Provide a tutorial walk through for the first time the user uses it instead of providing the explanation on the screen every time. You can also make the tutorial re-accessible in case the user were to need it again.

4. H5: Error Prevention, H6: Recognition Rather than Recall, H9: Help Users Recognize, Diagnose, and Recover from Errors / Severity 2 / Found by: A, B

For the “Add Details” popup on the Recording Details screen, the user may accidentally mistype certain fields or have inconsistent formatting. This can cause persisting errors or inconsistent aesthetics outside of the designer’s choices. This also forces the user to remember the Title/Subject of their lesson, when it would be easier if this information was just provided for them.

Fix: Create drop downs that allow the users to choose from available options for the title, subject, and students. If the user clicks on an invalid option (e.g. a Title for a lesson that they have already completed), a small error message should appear.

5. H3: User Control and Freedom / Severity 3 / Found by: B, C

The popups for the Recording Details flow have an ‘X’ on the left screen, which to me tells me that clicking that button will close the entire popup. This would mean the user would have to go through the entire flow of popups again if they were to make a mistake, which can include repetitive tasks that did not need fixing.

Fix: Have a back arrow button so that users can quickly reach the frame before the one they are currently on

6. H7: Flexibility and efficiency of use, H3: User Control and Freedom / Severity 3 / Found by: B, C

The transcript is a lot of text to sift through, and users may not carefully read through all of it in one sitting. This can cause the report to generate mistranscribed information.

Fix: Allow the user to have access to and make edits to the transcript from the Lesson Report.

7. H6: Recognition Rather than Recall / Severity 1 / Found by: B

When chatting with the AI assistant, there is no name that shows up at the top of the chat or per each text that the AI assistant sends. This is inconsistent with the real world’s usage of chat threads, which dehumanizes the chat assistant as well as is something that feels missing for the user.

Fix: Name the AI assistant/allow it to provide an audio of its texts

8. H4: Consistency and Standards / Severity 1 / Found by: B

There are some inconsistencies with button formatting. Some buttons have drop shadows (e.g. “Save” and “Learn More” under the tip of the day) and others don’t (e.g. “Expand all” and “Collapse all” under the Lesson Report). The people tagged under the Lesson Report previews also look like buttons, especially since they match the “Filter” button.

Fix: Decide on a consistent format for buttons.

9. H11: Accessible Design / Severity 2 / Found by: B, C

The gray chat bar for the AI assistant at the bottom of the Lesson Report blends in with the green background, making it a bit hard to see.

Fix: Make the chat bar white/increase the contrast between the two colors.

10. H8: Aesthetic and Minimalist Design, H7: Flexibility and Efficiency of use / Severity 2 / Found by: B, C

The constant chat bar for the AI assistant takes up a lot of screen space, especially if the user may not always need to use it. This takes up screen space, especially if there is already a tab for AI chat. Additionally, would these two spaces for the AI chat show the same exact thread? If so, this may be repetitive.

Fix: Make a small persistent icon on the bottom right corner that is an obvious chat bubble for an AI assistant and is efficient to use. This can expand to be a thread only when the user clicks on it. Consider minimizing the chat spaces to just one instead of two.

11. H4: Consistency and Standards / Severity 2 / Found by: B, C

“AI Agent” and “AI Assistant” are both used. The name Seedling is introduced in the chat tab but not in the chat pop up in the Lesson Report page. This felt like a disconnect and I had to rethink whether or not they were two different chat features.

Fix: Choose one term “AI Agent” or “AI Assistant.” Consistently use Seedling’s name in the different spaces.

12. H10: Help and documentation / Severity 3 / Found by: B

The Tip of the Day page includes “Your Insights” and a “Speaking” section. How does this relate to the tip of the day? I’m also unsure of what the “Speaking” section does. Also, I am unclear on what “Past 3/7 lessons” means.

Fix: Clearly make the association clear, or remove the “Your Insights” and “Speaking” sections/put them on a different page.

13. H11: Accessible Design / Severity 1 / Found by: B

The word “Speaking” in the Tip of the Day page blends in with the white background and is hard to see. The same goes for “After” and “Before” under the Autonomy in Learning page.

Fix: Darken/change the color of the text

14. H10: Help and documentation / Severity 2 / Found by: B

On the “Autonomy in Learning” page, it is unclear to me what the “After” and “Before” are in reference to. What do the charts represent? This may be confusing to users.

Fix: Have a (?) button to further explain/make the charts clear to the users. Alternatively, if it’s just information to fill the space, I would remove it.

15. H8: Aesthetic and Minimalist Design, H4: Consistency and Standards / Severity 1 / Found by: B

The current back arrows make the page header off centered. It also makes the alignment of each header different.

Fix: Use a chevron back arrow or put the back arrow above the page header.

16. H2: Match Between System and the Real World / Severity 1 / Found by: B

Your lockscreen notification didn’t have the app’s logo (I’m sure this might be a work-in-progress). I also noticed a logo wasn’t found on your app’s interface, which can make your branding less recognizable.

Fix: Add your logo to the notification/throughout the app where appropriate

17. H12: Value Alignment and Inclusion / Severity 2 / Found by: B

I noticed there were some charts and graphs, but had trouble making sense of them. Since this is a supportive app for parents homeschooling their children, I think it is important to include a measurement of progress for the students in order to visualize that the app is adding to their learning experience.

Fix: Add a section either in the Home or Profile page that somehow displays progress for each student. Something along the lines of “Student 1 has completed 5 out of 7 units in science.” This would also be a good place for charts.

18. H6: Recognition Rather than Recall / Severity 1 / Found by: B

In the Profile page of the app, the “Saved Tips” section uses the same red circle icon that “History and reports” uses. This lack of contrast can cause the user to have to think a little harder in order to differentiate.

Fix: This is a great opportunity to reuse the lightning bolt icon so that the user can quickly recognize the association to the Tips of the Day.

19. H7: Flexibility and Efficiency of Use / Severity 1 / Found by: B

Many of these pages require the user to navigate to new frames. On the Profile page, both sections would require the user to click “See More” in order to navigate to a new page with more information, which feels like an additional step for the user.

Fix: Make the “Saved Tips” section a horizontal scroll. Alternatively, the “See More” can expand downwards.

20. H4: Consistency and Standards / Severity 1 / Found by: B

The “Profile” header on the Profile page is a different font from the rest of the headers, which is a minor text inconsistency.

Fix: Make the text the same font as the other headers.

21. H8: Aesthetic and Minimalist Design / Severity 2 / Found by: B, C

The Tip of the Day takes up almost half of the Home page. If the user has already saved the tip, is it necessary for them to keep seeing that tip at that scale? I think this space could be used for other valuable information.

Fix: Make this section smaller/hide either the entire message or the save button after the user has saved it or make the save button an icon to save space.

22. H3: User Control and Freedom / Severity 3 / Found by: B, C

I can imagine that the user may accidentally start a recording, but there is no cancel button to exit the recording. The user must then go through the flow until they are provided with the option to delete the recording.

Fix: Add an ‘X’ to the screen to allow for easy exiting.

23. H6: Recognition Rather than Recall / Severity 3 / Found by: B

It is unclear to the user where they can start editing the recording on the “Edit Recording” screen. Users are used to either seeing an edit button to allow them to start editing, or a cursor to signify that they are able to edit.

*Note: I noticed that your medium task includes “...look over the transcript to ensure that it does not need to be edited...” which assumes that no editing is required. I’d argue that it’s pretty crucial to include the actual editing into the task too!

Fix: Add an edit button to the screen.

24. H11: Accessible Design / Severity 3/ Found by: B

The color palette seems to primarily use green and red, which can be inaccessible to colorblind users.

Fix: Adjust one of the colors in the theme to be more accommodating to colorblindness (or colorblind mode).

25. H4: Consistency and Standards / Severity 1/ Found by: B

Some of the buttons are all lower-cased while some are capitalized. For example, the “Save” and “Learn More” buttons under the Tip of the Day are capitalized, but the “next” and “upload” buttons during the recording flow are lower-cased.

Fix: Choose one format and remain consistent with it.

26. H4: Consistency and Standards / Severity 4/ Found by: B

The Lesson Reports include the instructor, signifying that there can be multiple instructors. However, after an audio recording, when asked to submit details about the audio, there is not a field to add the instructor.

Fix: Add a field asking for the instructor.

27. H4: Consistency and Standards / Severity 4/ Found by: B

In the “Edit Recording” page, the transcript assumes that the instructor is the user (Leslie). However, the Lesson Reports show that there can be different instructors. Additionally, the option to edit the transcript is shown before the details are asked about the audio. Therefore, it wouldn’t make sense that the system would be able to know who is the instructor (for example, if it was parent 1 or parent 2).

Fix: Remove the profile picture icon signifying that speaker as the instructor if this is not information that the system has. Alternatively, move the “Recording Details” page before the actual recording.

28. H6: Recognition Rather than Recall / Severity 2/ Found by: B

On the Recording Details Summary pop up, it is not written in text that the subject was science. Only the icon for science is included. The user should not have to remember the way that the app uses particular icons.

Fix: Add text that says “Subject: Science.”

29. [H4 Consistency and Standards] / Severity 2/ Found by: A

The tip of the day upon opening the app is different from the tip of the day that was available on the home screen.

Fix: Make the two the same

30. [H2 Match Between System and Real World] / Severity 2/ Found by: A

“Recording a lesson” icon (personally) didn’t match the mental model. This made it so I kinda had to wander through the UI to find the task I wanted.

Fix: Maybe change the icon to someone speaking (as if they were a teacher) focusing on what the user is doing instead of the app.

31. [H5 Error Prevention] / Severity 3/ Found by: A

When the user pauses their lesson and hits end, it immediately ends without the ability to confirm. This means the user could be locked into a permanent decision without any confirmation.

Fix: Have a prompt asking if they want to confirm.

32. [H4 Consistency and standards] / Severity 2/ Found by: A, C

The dots at the bottom of the recording UI (with edit, delete, upload) all feel like they should be able to be clicked on or slide through (because of the idea of carousels). This can confuse users about use (rather than conveying the system status

Fix: Convey the system status in a different way, maybe a bar with text?

33. [H3 User control and freedom] / Severity 1/ Found by: A

I don't think this one is severe, bc I think y'all are thinking about it (x in the recording screen), but I just wanna make sure to say it bc I can't actually interact with it. Make sure user can quit the recording at any time 😊

Fix: Have the exit present at any moment (with confirmation)

34. [H4 Consistency and Standards] / Severity 1/ Found by: A

Delete/not now should be switched, convention says left should be no, right should be yes

Fix: Left button on confirmation = not now, right = delete

35. [H8 Aesthetic and minimalist design] / Severity 1/ Found by: A

Honestly just not sure what category to put this in, but confirm on transcript screen covers some of the text, making it unviewable.

Fix: Make confirm not cover text (have some margin when scrolling)

36. [H3 User control and freedom] / Severity 1/ Found by: A

Quick remove for children on the summary screen (or all fields editable on the summary screen)

Fix: Add an x to each child and make other fields editable

37. [H11 Accessibility] / Severity 2/ Found by: A, C

Next button in the recording details screen is really small. This can make it harder for older folks to easily access app functionality.

Fix: Make it bigger and more central to the flow.

38. [H4 Consistency and standards] / Severity 2/ Found by: A, C

You have the next button in the top right corner of recording details, but upload on the next screen is centered.

Fix: Put singular continues through UI consistent (i.e. all at the bottom)

39. [H11 Accessibility] / Severity 2/ Found by: A

How it works + privacy text is a little small. Having some way to make it bigger or making it inherently bigger would make it easier for folks to see (especially if the demographic is older)

Fix: Make text on recording screen bigger

40. [H8 Aesthetic and minimalist design] / Severity 2/ Found by: A

The learn more, tip of the day screen is very busy. Between insights, graphs, and more information on the bottom, its a little hard to navigate and parse what goes where and what belongs to what.

Fix: Increase the amount of whitespace on the screen, and consider hiding/layering information. They don't need the statistic on autonomy in learning immediately, and should rather get that info if they click on the header.

41. [H7 Flexibility and efficiency of use] / Severity 2/ Found by: A

Upon saving, it'd be great if people could quickly access all the tips of the day they saved. This would improve power users' experience who frequently save and review tips.

Fix: Add a button that navigates a user to all their tips after hitting the save button

42. [H4 Consistency and standards] / Severity 1/ Found by: A, C

Home + Lesson + Profile have the headers at the top-left of the screen while its centered for AI agent and recording. This can confuse people's reading of the page (what's the header?)

Fix: Either put all in the top-left or center.

43. [H7 Flexibility and efficiency of use] / Severity 3 / Found by: A

I'm not sure how to navigate to the tips of the day I saved. Other users may not be able to find it as well

Fix: Add where to see former tips of the day or make it its own section in your navbar.

44. [H11 Accessible Design] / Severity 2 / Found by: A

For dyslexic folks or folks who struggle to read, pure text on the lesson report may make it hard to navigate and figure out what category is what.

Fix: Consider adding supplemental icons to improve readability

45. [H5 Error Prevention] / Severity 3 / Found by: A

When a user adds a tip of the day, there's nothing there to allow them to undo it. This will require a high volume of actions to undo something that may have been accidentally clicked on.

Fix: Add an undo button after saving.

46. [H7 Flexibility and Efficiency of Use] / Severity 2 / Found by: A

Besides searching, there's no way to quickly filter through tips of the day (based on date or subject). This can slow down power users who have a high volume of tips.

Fix: Add a filter option for saved tips too.

47. [H4 Consistency and standards] / Severity 2 / Found by: A

The history and reports and saved tips on the profile screen have clickable tips and reports to allow quick access which is great. They don't necessarily afford action (since they don't have any action colors).

Fix: Add action colors to history and reports and saved tips list on the profile screen.

48. [H8 Aesthetic and minimalist design] / Severity 1 / Found by: A

The Tip of the Day and Home header both have the same level of visual hierarchy even though home is a higher organization than tip of the day. This may confuse users as to what the page's main purpose is.

Fix: Decrease the visual hierarchy of the Tip of the Day header

49. [H1 Visibility of System Status] / Severity 2 / Found by: A

When looking at the saved tips, the system status says you're on the home screen when it doesn't feel like something that belongs there.

Fix: Consider making Tip of the Day its own category, or having a subdivision that makes it clear where the user is (or keep it profile since that's where you access it.)

50. [H3 User Control and Freedom] / Severity 2 / Found by: A

If a report is no longer helpful, give power users a way to quickly hide and remove the amount of visual noise without having to filter or search. This will allow them to navigate quickly and freely.

Fix: Allow deleting lesson reports.

51. [H6: Recognition not Recall] / Severity 2 / Found by: A

Would be great if the history and reports and saved tips section of the profile page had their original corresponding icons to increase consistency and readability. This'll allow them to quickly recognize certain flows if they already have been using the app since they'll see the icon.

Fix: Add history and reports and saved tips icon to each section on the profile page

52. [H2 Match between System and Real World] / Severity 3 / Found by: C

Hitting the back button under profile → lesson plan redirects to Lesson Reports (Pretty sure this is a Figma issue as well)

Fix: Make the back buttons redirect to the previous tab

53. [H3 User Control and Freedom] / Severity 4 / Found by: C

In the "Edit Recording" tab, there is no bottom toolbar, back button, or non-confirm button available, so the only course of action is to confirm the transcript

Fix: Allow for users to move away from the screen without confirming (through adding a back button to increase consistency and standards)

54. [H3 User Control and Freedom] / Severity 2 / Found by: C

After uploading a lesson plan, I cannot go back to previous screens despite the X button being present (Pretty sure this is a Figma error)

Fix: Enable the X button to take the user to the appropriate screen, or provide some other avenue for navigating away

55. [H3 User Control and Freedom] / Severity 3 / Found by: C

In the “Recording Details” summary tab (at the end), users are not given a way to edit their responses if they entered something wrong

Fix: Either implement an edit / back button, or change the screen to be an “are you sure?” page

56. [H4 Consistency and Standards] / Severity 1 / Found by: C

To exit the chat page with the AI Assistant, we must click the top left X. However, this design differs from other pages’ back button

Fix: Change the x to a back button

57. [H4 Consistency and Standards] / Severity 2 / Found by: C

The tags below the Lesson Reports are styled the same way as buttons, giving them the impression of being clickable; however, the buttons provide no additional functionality apart from clicking the rectangle

Fix: Distinguish the parent tags from the filter button in styling

58. [H6 Recognition rather than recall] / Severity 2 / Found by: C

After recording, the save screen uses bright green button and bold white text, which haven’t been used in other parts of the app, which reduces recognizability

Fix: Change the buttons to be consistent with the style guide

59. [H6 Recognition rather than recall] / Severity 2 / Found by: C

After finishing a recording, the tab is labeled ‘Actions’, which does not guide the user on where they are in the process or what the next steps entail

Fix: Rename ‘Actions’ to something more descriptive (or get rid of the title and make the tab more prominent)

60. [H8 Aesthetic and Minimalist Design] / Severity 2 / Found by: C

After recording, the actions tab is labeled without bolding, but the buttons are much larger and bolded, creating an unintuitive visual hierarchy

Fix: Change the buttons to be smaller / less bold, reduce spacing between them, and increase the prominence of ‘Action’

61. [H8 Aesthetic and Minimalist Design] / Severity 1 / Found by: C

In the AI Agent tab, the color of the text box background for Seedling is difficult to see, so the text appears to be floating in contrast to the red that is being used for the user

Fix: Change the green to have slightly less opacity so it is more clearly seen

62. [H10 Help and documentation] / Severity 2 / Found by: C

The current AI Agent is a chat bot, which has a wide range of inputs and may flood the user with too many options. A help page may be able to indicate to the user how to better use the AI Agent

Fix: Add a help tab / button to the AI Agent

63. [H11 Accessible Design] / Severity 3 / Found by: C

The AI Agent can take speech input, but has no indication that it can provide speech output, which would limit the accessibility to some users

Fix: Add a speech capability to the AI Agent and indicate it (possibly in the form of a speak button that would repeat the text written out)

3. Summary of Violations

Category	# Viol. (sev 0)	# Viol. (sev 1)	# Viol. (sev 2)	# Viol. (sev 3)	# Viol. (sev 4)	# Viol. (total)
H1: Visibility of Status			1	1		2
H2: Match Sys & World		1	1	1		3
H3: User Control		2	2	3	1	8
H4: Consistency		6	7		2	15
H5: Error Prevention			1	2		3
H6: Recognition not Recall		2	4	1		7
H7: Efficiency of Use		1	2	2		5
H8: Minimalist Design		4	4			8
H9: Help Users with Errors						0
H10: Documentation			3	1		4
H11: Accessible Design		1	4	2		7
H12: Value Alignment & Inclusion			1			1
Total Violations by Severity	0	17	30	13	3	63
Note: check your answer for the green box by making sure the sum of the last column is equal to the sum of the last row (not including the green box)						

4. Evaluation Statistics

ex) If Evaluator A found 1 of the 4 total severity 1 violations, they would put down 25%

Severity / Evaluator	Evaluator A	Evaluator B	Evaluator C
sev. 0	0	0	0
sev. 1	35%	53%	24%
sev. 2	53%	59%	40%
sev. 3	23%	54%	54%
sev. 4	0	67%	33%
total (sev. 3 & 4)	15%	45%	40%
total (all severity levels)	39.7%	44%	38%

***Note that the bottom rows are *not* calculated by adding the numbers above it.**

5. Summary Recommendations

Fantastic work on the medium fidelity prototype! The prototype was intuitive and easy to interact with despite restrictions imposed by Figma. I especially appreciated the simplistic feel of the app – it didn't feel crowded and felt intuitive to use, but there is still a powerful set of features to use and explore. While the app functions well, there are a few consistency concerns that are flagged above; for instance, the button design sometimes conflicts with the “tagging” design, which causes some confusion, or the back buttons are sometimes substituted for x buttons despite the tab taking up the entire screen. In general, it was hard to determine how good flows were other than a user on the “happy path” because some of that functionality hadn't been wired yet, so I'd say to just make sure that those user interfaces are doing what users need. We'd really love the “tips flow” to be more fleshed out for task 1. The major recommendation I have for the happy path is to just double check consistency with industry/mental model standards for how things ought to be. When there's a way to communicate something, make sure it's communicated in all the ways possible to maximize usability (so long as it doesn't serve as a major distraction). Additionally, there were some attempts at visuals (charts/graphs/etc.), which would be helpful for the user to see progress and visualize how the app benefits their teaching experience. However, the current visuals were slightly confusing; we would recommend reflecting on what the user would want to see in terms of data, for both themselves and their students! Additionally, make sure there is consistency with the functionality of features. The Lesson Reports implied that there could be multiple instructors, but the audio flow did not include the option to select your instructor and also assumed that the instructor was the platform user.

Our main takeaways for your re-design 3 would be to focus on maximizing user freedom through a flow (especially when not on the “happy path”) and double-checking all flows for consistency with norms established in your app.

Severity Ratings

- 0 - don't agree that this is a usability problem
- 1 - cosmetic problem
- 2 - minor usability problem
- 3 - major usability problem; important to fix
- 4 - usability catastrophe; imperative to fix

Heuristics

H1: Visibility of System Status

- Keep users informed about what is going on

H2: Match Between System & Real World

- Speak the users' language
- Follow real world conventions

H3: User Control & Freedom

- "Exits" for mistaken choices, undo, redo
- Don't force down fixed paths

H4: Consistency & Standards

H5: Error Prevention

H6: Recognition Rather Than Recall

- Make objects, actions, options, & directions visible or easily retrievable

H7: Flexibility & Efficiency of Use

- Accelerators for experts (e.g., gestures, kb shortcuts)
- Allow users to tailor frequent actions (e.g., macros)

H8: Aesthetic & Minimalist Design

- No irrelevant information in dialogues

H9: Help Users Recognize, Diagnose, & Recover from Errors

- Error messages in plain language
- Precisely indicate the problem
- Constructively suggest a solution

H10: Help & Documentation

- Easy to search
- Focused on the user's task
- List concrete steps to carry out
- Not too large